WHAT IS CLAIMED IS:

1. A modular electronic system using a tongue and groove arrangement to restrain motion of electronic modules, the modular electronic system comprising:

an equipment rack with a plurality of openings for receiving electronic modules, wherein an opening is defined by a left side wall, a right side wall, and a bottom surface, where the left side wall further defines a first groove disposed a first height above the bottom surface, where the right side wall further defines a second groove disposed a second height above the bottom surface, where the first height is different from the second height; and

a plurality of electronic modules with housings adapted to slidably couple into openings of the equipment rack, where a housing for an electronic module further comprises at least a left side wall and a right side wall, where the left side wall of the electronic module comprises a first tongue that is adapted to mate with the first groove in a corresponding left side wall of the equipment rack, and where the right side wall of the electronic module comprises a second tongue that is adapted to mate with the second groove in a corresponding right side wall of the equipment rack.

2. The modular electronic system as defined in Claim 1, wherein the opening in the equipment rack that is defined by the left side wall, the right side wall, and the bottom surface does not have an upper surface for restraining vertical movement of an electronic module.

3. The modular electronic system as defined in Claim 1, wherein a first side of a single side wall defines the left side wall with the first groove for the opening, and where a second side of the single side wall defines a right side wall with a second groove for a second opening.

4. The modular electronic system as defined in Claim 1, wherein at least one of the electronic modules corresponds to a power supply.

5. An equipment rack for holding electronic modules, the equipment rack comprising:

a plurality of bottom walls;

a plurality of side walls, where a space between side walls and a bottom wall defines an opening for an electronic module;

a plurality of first grooves on a first side of the side walls, where the first grooves are displaced by a first amount from a bottom wall of a corresponding opening; and

a plurality of second grooves on a second side of the side walls, where the second grooves are displaced by a second amount from a bottom wall of a corresponding opening, where the second amount is different from the first amount.

6. The equipment rack as defined in Claim 5, wherein an opening in the equipment rack that is defined in the space between a first side of a side wall, a second side of a side wall, and a bottom surface does not have an upper surface for restraining vertical movement of an electronic module disposed therein.

7. The equipment rack as defined in Claim 5, wherein the first side of the side wall and the second side of the side wall comprise opposite sides of a single wall.

8. A side wall in an equipment rack that is adapted to hold electronic modules, the side wall comprising:

a first side;

a second side;

a first groove defined in the first side; and

a second groove defined in the second side, wherein the second groove is at a different height than the first groove.

9. The side wall as defined in Claim 8, wherein the side wall is fabricated from a single sheet of metal.

10. The side wall as defined in Claim 8, where the first groove on the first side is adapted to mate with a first tongue on a first side of an electronic module, and where the second groove on the second side is adapted to mate with a second tongue on a second side of another electronic module, where the second side is opposite to the first side.

11. A housing for an electronic module that is adapted to slide into an opening in an equipment rack, the housing comprising:

a rear side adapted to interface with the equipment rack via at least one connector;

a front side;

a top;

a bottom;

a first side wall with a first tongue, where the first tongue is at a first height with reference to the bottom, where the first tongue is adapted to slidably couple into a first groove of a corresponding wall of an equipment rack; and

a second side wall opposite the first side wall, the second side wall having a second tongue that is adapted to slidably couple into a second groove of a corresponding wall of the equipment rack, where the second tongue is at a second height with reference to the bottom, where the second height is different from the first height.

12. The housing for the electronic module as defined in Claim 11, wherein the electronic module corresponds to a power supply.

13. The housing for the electronic module as defined in Claim 11, wherein the at least one connector comprises a plurality of connectors.

14. The housing as defined in Claim 11, wherein the electronic module corresponds to a power supply, wherein the at least one connector comprises pre-charge contacts and regular power contacts, the housing further comprising a mechanical interlock having at least a first state and a second state, wherein the mechanical interlock permits partial insertion of the power supply into the equipment rack in the first state such that the pre-charge contacts have electrical continuity with corresponding contacts in the equipment rack and interferes with full insertion such that the regular power contacts do not have electrical continuity with corresponding contacts in the equipment rack, and where the mechanical interlock permits full insertion of the power supply into the equipment rack in the second state such that the regular power contacts can have electrical continuity with corresponding contacts in the equipment rack.

15. A power supply that embodies the housing of Claim 11.